

Bay Area Resilience Planning Hazard Mitigation and Climate Adaptation Plans

Association of Bay Area Government's Resilience Program

*San Francisco Bay Conservation and Development
Commission's Adapting to Rising Tides Program*



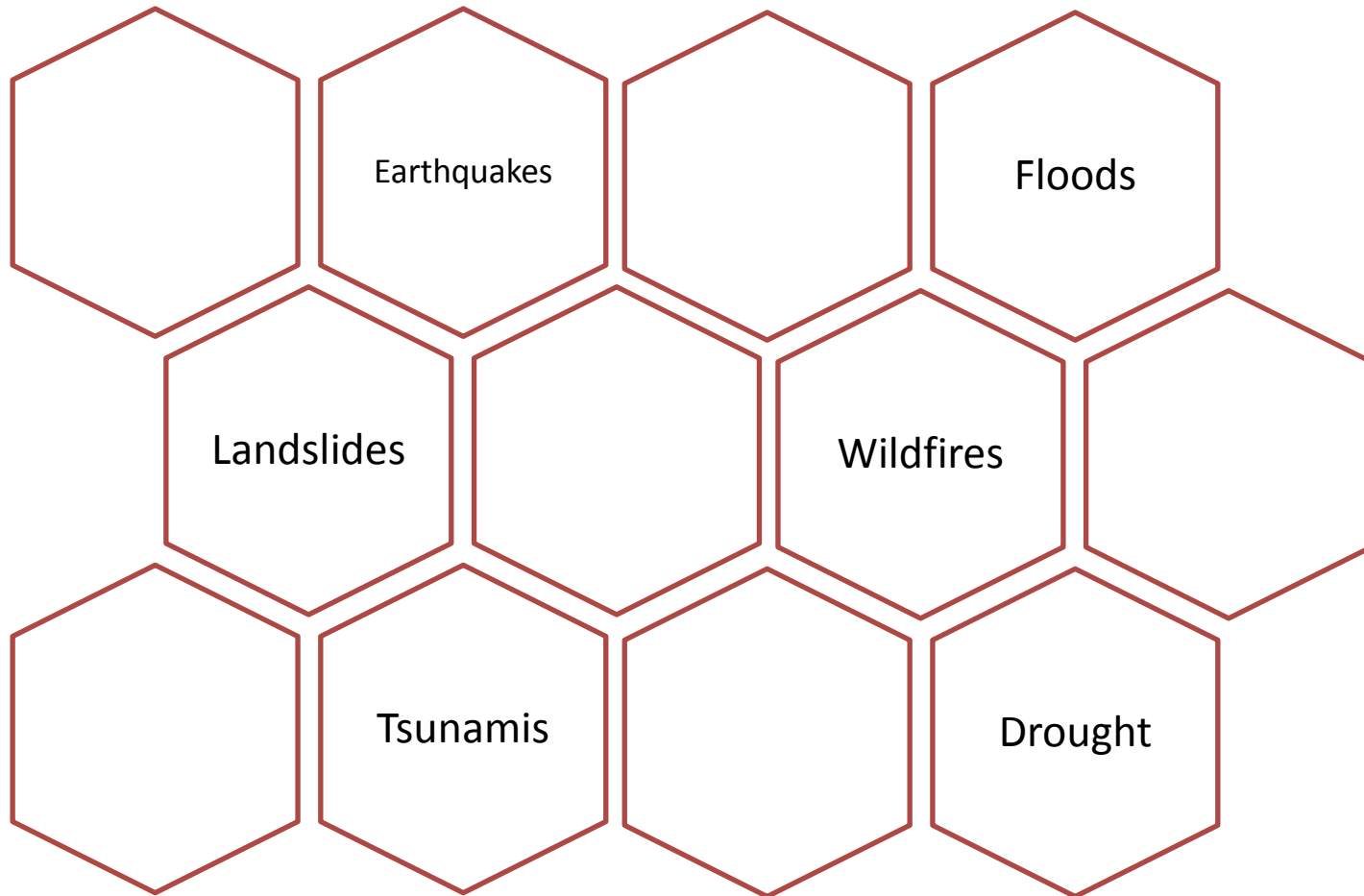
Agenda

- 9:00 Registration
- 9:30 Welcome and Process Update
- 9:40 Strategy Implementation with FEMA Assistance
- 9:50 Round Robin Check-in
- 10:10 Mitigation + Adaptation Strategy Development**
- 10:55 Break & Strategy Open House
- 11:15 Mitigation + Adaptation Strategy Evaluation**
- 12:00 Lunch
- 12:45 Mitigation + Adaptation Strategy Implementation**
- 1:00 Submittal & Review Process
- 1:15 Wrap Up and Next Steps
- 1:30 Adjourn

Workshop 3 Objectives

- Learn about resources for implementation of strategies
- Learn how to choose appropriate strategies based on goals and risk statements
- Identify prioritization criteria and develop strategy work plans
- Understand how to make strategies actionable through compelling storytelling and engagement
- Outline plan submission and review process and discuss funding/financing options

Natural hazards impact our communities



Hazard Mitigation Planning + Climate Adaptation Planning

Consider current hazards and the effect climate change will have on them

Assess vulnerability of assets

Assess risk from current and future hazards to assets

Develop resilience strategies that mitigate hazards and adapt to future conditions

Legislative Context

State policy is starting to require a more integrated, innovative resilience approach

SB 379 (presented to governor) – Requires safety element + hazard mitigation plan to address climate change

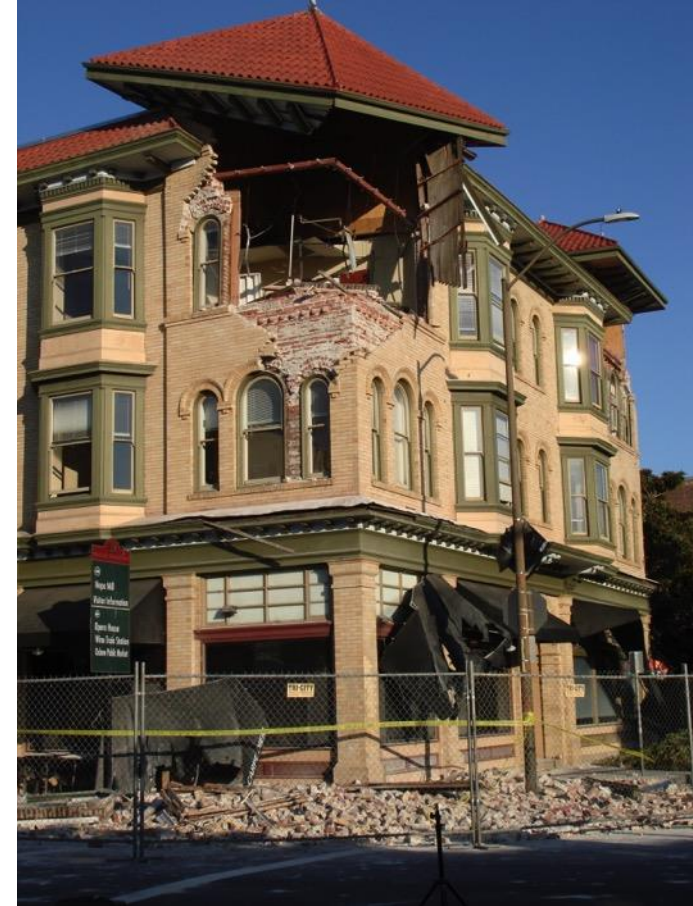
SB 1241 (passed) - Requires safety element to be reviewed and updated to address fire hazard when housing element is updated.

SB 602 (passed) – Allows California Earthquake Authority to use voluntary financing tool for homeowners to retrofit their homes

Guidance for state mitigation plans updated to require consideration of climate change effects

Benefits of planning for current and future hazards

- Protect public safety and prevent loss of life and injury
- Reduce damage to buildings and infrastructure
- Reduce the economic and financial impact of disasters
- Protect community's unique economic, cultural and environmental resources
- Speed community recovery
- Plan to reduce long-term risks from hazards associated with climate change.



Benefits of a hazard mitigation plan

- Mitigation grants (CalOES)
- Flood insurance premium reductions under CRS
- Waive 6.25% local match for Public Assistance money *if plan is aligned with general plan safety element.*





Local Mitigation Planning Handbook

March 2013



Process and people

TASK 1 Determine the Planning Area and Resources

TASK 2 Build the Planning Team

TASK 3 Create an Outreach Strategy

Analysis and decisions

TASK 4 Review Community Capabilities

TASK 5 Conduct a Risk Assessment

TASK 6 Develop a Mitigation Strategy

TASK 7 Keep the Plan Current

TASK 8 Review and Adopt the Plan

Resources for implementation

TASK 9 Create a Safe and Resilient Community



Desired outcomes of the planning process

- Robust local plans
- Streamlined plan development process
- Inclusive community engagement process
- Assess current and future conditions (climate change and land use)
- Focus on strategy and implementation
- Integration with other planning efforts

ABAG and BCDC assistance - process

Workshops

1. Community engagement
2. Hazard and risk
3. Mitigation and adaptation strategies

Hazard Mitigation & Climate Adaptation Planning Outline



Table of Contents of Sample Mitigation & Adaptation Plan	
1.	Introduction
2.	Planning Process
3.	Capability Assessment
4.	Community Profile
5.	Hazard Identification & Risk Assessment
6.	Mitigation Strategies
7.	Maintenance Procedure

1. Introduction

see FEMA Handbook (Introduction, pg. 1-1)

1.1 Background

1.2 Disaster Mitigation Act of 2000

The regulatory need for the plan.

1.3 Purpose

Why we value hazard mitigation in our community. Can be framed around a mission statement developed by the local planning team.

1.4 Scope

Can be framed around a mission statement developed by the local planning team.

Hazard Mitigation & Climate Adaptation Planning: Meeting Roadmap



Individualized technical assistance

ABAG and BCDC assistance – plan development

Open Data Website	Risk Landscape Document
Hazard maps – GIS layers	List of state and federal declared disasters
Regional level asset data – hospitals, schools, infrastructure, etc.	Language characterizing natural hazards
	Historic hazard occurrences and future probability
	Replicable methodology for risk assessment
	Mitigation and adaptation compendium

<http://resilience.abag.ca.gov/projects/2016-mitigation-adaptation-plans/>

Local responsibility - LHMP

- Develop plan that meets FEMA requirements
- Submit plan to CalOES for review and FEMA approval
- Get plan adopted by governing board
- Integrate the plan with other long-range and comprehensive plans
- Maintain and implement the plan

Process Check-in

- What challenges to implementation do you think your jurisdiction will have?
- What successes have you experienced?

State Funding Sources

Caltrans

- Bridge retrofit

CEA

- Funding for residential retrofit, Brace and Bolt

Flood Hazard

- Various state sources for flood mitigation

Wildfire Hazard

- CalFIRE & California Fire Safe Councils Program

Other

- Various other departments have grants available

National Funding Sources

EPA

- Water quality, wetlands protection

NOAA

- Coastal zone management

USACE

- Water resource issues

HUD

- CDBG, NSP

BLM

- Wildfire safety and prevention

USDA

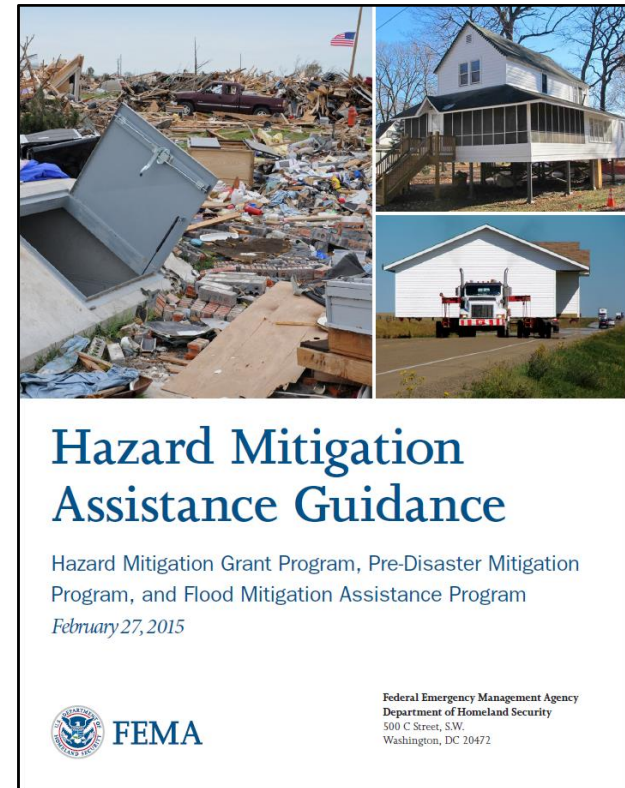
- Various grants

DHS

- Emergency preparedness

FEMA Hazard Mitigation Assistance Grant Programs

- Hazard Mitigation Grant Program (HMGP)
 - funding for eligible mitigation projects following a major disaster
- Pre-Disaster Mitigation (PDM) Program
 - funding for hazard mitigation planning and projects on an annual basis
- Flood Mitigation Assistance (FMA) Program
 - Funding for projects to reduce/eliminate risk of flood damage to buildings insured under the NFIP on an annual basis



FEMA Hazard Mitigation Assistance Grant Programs

- Eligibility
 - Local governments are considered sub-applicants and must apply to the applicant State (CalOES)
 - Eligible Mitigation Actions
- Grant application review criteria
 - Cost-effectiveness review
 - Feasibility and effectiveness review
 - Environmental Planning and Historic Preservation Review

Table 3: Eligible Activities by Program

Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	✓	✓	✓
Property Acquisition and Structure Demolition	✓	✓	✓
Property Acquisition and Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-residential Structures	✓	✓	✓
Generators	✓	✓	
Localized Flood Risk Reduction Projects	✓	✓	✓
Non-localized Flood Risk Reduction Projects	✓	✓	
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-structural Retrofitting of Existing Buildings and Facilities	✓	✓	✓
Safe Room Construction	✓	✓	
Wind Retrofit for One- and Two-Family Residences	✓	✓	
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	
Post-Disaster Code Enforcement	✓		
Advance Assistance	✓		
5 Percent Initiative Projects	✓		
Miscellaneous/Other ⁽¹⁾	✓	✓	✓
2. Hazard Mitigation Planning	✓	✓	✓
Planning Related Activities	✓		
3. Technical Assistance			✓
4. Management Cost	✓	✓	✓

⁽¹⁾ Miscellaneous/Other indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

Mitigation Actions Implementation

- FEMA is increasing efforts to work with communities to identify **AND** implement mitigation actions
- FEMA and CalOES are resources for communities and can provide information on:
 - FEMA Hazard Mitigation Assistance Programs
 - Other Federal and State Funding Sources
- FEMA can also provide communities with Technical Assistance
 - Benefit Cost Analysis
 - Tools and Job Aids
 - Hazus
 - Grants management principles and practices
- Plan Maintenance Meetings/coordination across agencies/departments and other organizations
 - Identify synergies between hazard mitigation planning/resilience planning with other funding sources

Planning Process

1. Establish Team

2. Identify and Assess Hazards and Assets

3. Develop and Evaluate Strategies

4. Adopt the Plan

5. Implement the Plan

Community Engagement

Strategy Selection and Evaluation

1. Set or Revisit Goals

2. Revisit Problem Statements

3. Identify Appropriate Strategies

4. Evaluate and Prioritize Strategies

5. Develop Implementation Plans

Strategy Outcomes

- 3-5 prioritized, implementable strategies that tie back to community goals, problem statements, and other local actions
- Implementation plans for strategies
- A case that decision makers and funders can use to support strategy implementation
- Community buy-in

What does FEMA require?

C4. Identify and analyze a comprehensive range of **specific mitigation actions and projects** for each jurisdiction being considered to **reduce the effects of hazards**, with emphasis on **new and existing buildings and infrastructure**?

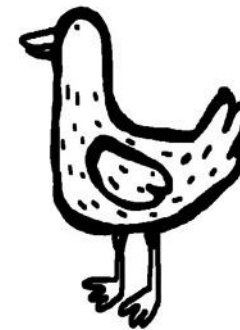
C5. Does the Plan contain an **action plan** that describes how the actions identified will be **prioritized** (including **cost benefit** review), **implemented**, and **administered** by each jurisdiction?

C6. Does the Plan describe a process by which local governments will **integrate the requirements** of the mitigation plan into **other planning mechanisms**, such as **comprehensive or capital improvement plans**, when appropriate?

Set or Refine Goals

Identify community goals to help frame and guide the assessment. These goals can be based on existing community goals or developed specifically based on the risk assessment

- Make decisions about prioritizing your strategies
- Get stakeholders and the public on board
- Meet FEMA plan check requirements (goals to reduce/avoid long-term vulnerabilities to identified hazards)



my goals.

Eat. Fly
Sleep. swim
quack.
mate
Lay eggs
raise chicks
~~Learn taekwondo~~
Build a nest.

Now's the time to use those Key Issue Statements!

- Highlight critical planning issues that have emerged in your assessment
- Prioritize and focus on areas in greatest need of mitigation
- Bring stakeholders together on issues that require collaborative decision making, shared funding, or changes in laws, regulations, policies or other processes
- Lead directly to mitigation strategies

CALPINE RUSSELL CITY ENERGY CENTER



Asset Description: The Russell City Energy Center (Energy Center) is a natural gas-fueled power plant that provides 619 megawatts (MW) of electricity to the Bay Area. The plant went online in August 2013 and has an expected lifespan of 40 years. The plant is owned and operated by CalPine, which sells the majority of its power to PG&E through operating agreements. The plant generates enough electricity for 600,000 residents and pays \$5 million in taxes to the City of Hayward annually.

Key Issue Statement: The Energy Center is vulnerable to sea level rise impacts because of its reliance on water, access roads, and other utilities that are vulnerable to storm surge and sea level rise. Information about plant operations are not publicly available, which makes it difficult to adequately consider the plant in sea level rise adaptation planning. While the plant may not be vulnerable to more serious flooding impacts since it has an expected lifespan of only 40 years, the site will need to be cleaned up and/or protected as sea level rises.

Vulnerabilities

INFO: CalPine, a private entity, owns and operates the Energy Center, and management and operations plans are not publicly available, making it difficult to adequately assess the plant's vulnerability and risk.

FUNC: The Russell City Energy Center requires 2 million gallons per day of cooling water from Hayward Water Pollution Control Facility (HWPCF) and also discharges wastewater to the HWPCF. In addition, it relies on streets, roads, and highways for employee access. The dependence of the plant on potentially vulnerable utilities may cause the plant to be vulnerable before the plant itself is exposed to flooding, since the plant requires the cooling water and the road access to operate.

Consequences

Society and Equity: If the plant is shut down or moved due to sea level rise, 30 jobs may leave the area or disappear entirely.

What is a robust strategy?

Getting beyond the list

- Connect each strategy directly to the outcomes of the assessment, i.e., key issue or problem statement
- Characterize the strategy by problem statement it addresses, hazard, and type
- Highlight responsible agencies, possible partners, and processes that may be involved in implementation

STRATEGY DEVELOPMENT INFORMATION							
Strategy Name*	<i>This is a one-sentence summary of the strategy</i>						
Problem Statement*	<i>This is the problem statement that the strategy is responding to. This should come out of your risk assessment and should include community goals.</i>						
Hazard(s) Addressed	Earthquake Ground Shaking	Earthquake Liquefaction	Current Flooding	Future Flooding	Wildfire	Landslide	Other Hazards
Strategy Type	Evaluation <i>Actions to improve data and information or conduct new analysis</i>	Program/ Operation <i>Actions to update plans, procedures, or management activities</i>	Policy Development <i>Actions to develop or revise policies and guidelines</i>		Coordination <i>Actions to initiate or expand partnerships</i>	Education/ Outreach <i>Actions to communicate information and build</i>	
Process/ Implementation Mechanism	Long-Range Planning <i>e.g., master plans, climate action plans</i>	Land Use Planning <i>e.g., general plan, specific plan</i>	Capital Planning <i>e.g., capital improvement plan</i>	Operations <i>e.g., annual budgeting</i>	Emergency & Hazards Planning <i>e.g., hazard mitigation plans</i>	Project Planning & Design <i>e.g., private and public development projects</i>	New Initiatives <i>e.g., legislation , ballot measure</i>
Responsible Agency*	<i>Which department has the proper authority, capacity, and knowledge to implement the strategy</i>						
Partners*	<i>Internal or external stakeholders who have some decision-making authority, political influence, policy or regulation authority, or who can assist with implementation</i>						

Example strategies – Berkeley LHMP

2014 URM	Complete the ongoing program to retrofit all remaining non-complying Unreinforced Masonry (URM) buildings.
Proposed Activities	<ul style="list-style-type: none"> - Begin by working with owners of remaining potentially hazardous URM buildings to obtain structural analyses of their buildings and to undertake corrective mitigation measures to improve seismic resistance or to remove the buildings and replace them with safer buildings. - Apply available legal remedies, including but not limited to citations, to owners who fail to comply with the URM ordinance. - Maintain program notification to building occupants and owners.
Related Natural Hazard(s)	Earthquake
Associated LHMP Objective(s)	A. Reduce the potential for loss of life, injury and economic damage to Berkeley residents and businesses from earthquake, wildland-urban interface fire, landslide, flood, tsunami, climate change, and the cascading impacts of these hazards.
Related Policies from the General Plan or Climate Action Plan	General Plan Policy S-20, Action A
Special Environmental Concerns	All building upgrade activities will include efforts to minimize impacts to existing residential and commercial tenants, and historic resources.
Lead Organization and Staff Lead	Planning Department - Building and Safety Division Staff Lead: Program and Administration Manager
Priority	High
Timeline	Engage all remaining URM building owners by January 2015 Complete all remaining URM retrofits/demolitions by

Example strategies – ABAG/BCDC Stronger Housing, Safer Communities

27. Reduce flood risk through integrated watershed management

Develop a program to work with public and private landowners to decrease the risk of flooding by advancing watershed management projects that reduce and/or store runoff during rainfall events, including the installation of green infrastructure and Low Impact Development (LID) practices, and improve the condition in the floodplain, for example through floodplain restoration or improvement.

Lead					Scale of Benefit			
State		Region		Local jurisdiction	Region		Community	Resident
Target Development Type				Hazard Addressed				
Existing		New		Ground Shaking		Liquefaction		Flooding
Community Vulnerability Addressed					Vulnerable Housing Type Addressed			
Age	Language & Ethnicity	Cost Burdened	Housing Tenure	Access to Resources	Single or Two Family	Multi-family	Cripple Wall	Soft story or House over garage
Action Categories								
Evaluation	Program/ Operation		Plans and Policies		Codes, Regulations, and Ordinances	Coordination		Education/ Outreach
Prerequisite Strategies					Other Related Strategies			
None					None			

Description

This strategy recommends developing an integrated watershed management program to reduce the risk of coastal and riverine flooding. The program would encourage watershed-wide solutions, including engineered and nature-based watershed management approaches such as the installation of green infrastructure, use of Low Impact Development (LID) practices, and improving the condition of the floodplain through restoration or maintenance. This strategy will help protect both existing and future housing located in coastal and riverine floodplains as well as adjacent low-lying areas that will be susceptible to flooding during storm events as sea level rises.

Example strategies – BCDC

Adapting to Rising Tides

Action Number	Action	Action Type	Process	Possible Actors	Action Characterization
O11.2	Conduct vulnerability assessments of critical infrastructure and land uses in areas exposed to sea level rise and liquefaction to identify strategies that can improve resilience to both hazards	Evaluation	Long-range Planning, New Initiative	ABAG, Caltrans, MTC, BCDC, ABAG, Special Districts, Cities, County, Private Sector	Do It Yourself, Unlocking, Multi-benefit, Local, Regional

Where to find strategies

- Pull from existing city documents (general plan, climate action plan, etc)
- Previous LHMPs and/or ABAG's previous plans
- Other ABAG/ART documents
- State Hazard Mitigation Plan
- FEMA Mitigation Ideas Book

Get stakeholder input

Hold a facilitated “open house”

- A relatively rapid way for stakeholders to gain familiarity with the format and content of the strategies
- Is interactive yet self-paced, participants are free to spend time with the information they are most interested in
- Allows project team members to document and clarify feedback, and explore questions or ideas in greater depth with stakeholders



ART SUPPLY: ENGAGEMENT EXERCISE
Design You Project Step 6:
Developing Adaptation Responses

Adaptation Response Open House

Purpose

Participants gain familiarity with the components of an adaptation response and provide feedback on the draft adaptation responses that have been developed for the project area.

Three Components of an ART Adaptation Response

1. The **vulnerability** being addressed by the adaptation response. Including this provides a direct link to the outcomes of the assessment and ensures that the most critical issues identified are addressed. Identifying the key vulnerability that is addressed is a transparent way to ensure that each adaptation action is connected to a planning issue.
2. **Adaptation actions** (one or more). While some vulnerabilities can be addressed by a single action, most require multiple, often coordinated actions. Some actions can be taken at the same time, while others require a series of sequential steps that incrementally build towards resilience. A response should describe key characteristics of the action that relevant to its implementation, for example if it is an action requiring a long lead time to implement.
3. **Implementation options** for each action. These provide alternatives for initiating adaptation actions such as incorporating them into existing planning or processes or creating new initiatives. The options also should identify the agencies and organizations – public and private – that have a role in implementing the actions.

Refer to the adaptation response card below for more description of these components.

Approach

Using an open house format, project participants visit multiple stations, each of which has a large format poster of draft adaptation responses prepared by staff for each sector (e.g., transportation, utilities, natural areas), set of assets or issues. With a project team member at each adaptation response station,

What are evaluation criteria

- An essential tool that agencies, organizations, and communities can use to develop a balanced hazard mitigation+ climate adaptation plan to help achieve community goals
- A robust set of evaluation criteria provide perspective on how different strategies affect society and equity, economy, environment, and governance. The balance of these “four frames” helps highlight benefits and trade-offs, which can be very useful when gathering political, community, and financial support for implementation

Society & Equity

Effects on communities and services on which they rely, with specific attention to disproportionate impacts due to inequalities.

Economy

Economic values that may be affected such as costs of physical and infrastructure damages or lost revenues during periods of recovery.

Environment

Environmental values that may be affected, including ecosystem functions and services, and species biodiversity.

Governance

Factors such as organizational structure, ownership, management responsibilities, jurisdiction, mandates, and mechanisms of participation that affect vulnerability to impacts.

Evaluate and Select

Lay a path towards action implementation

- Develop criteria to evaluate strategies against community goals and the four frames
- Use this process to help decision-makers and community members understand tradeoffs and consequences of different strategies
- Determine which strategies are high priority for implementation based on the agreed upon criteria



Evaluation criteria worksheet

Feasibility						Social Benefits					
Funding	Political Support	Local Champion	Administrative	Technical	Legal	Access	Life Safety	Awareness	Social Capacity	Vulnerable Residents	Recreation
With existing or expected funding sources	Likelihood of political support	Supported by a strong advocate or local champion	With existing operations or procedures	With existing technology or know-how	With existing authorities or policies	Protects access to jobs or services	Protects residents lives and prevents injuries	Increases public awareness	Builds social networks and community capacity	Protects especially vulnerable community members	Maintains recreational or educational opportunities

Economic Benefits				Environmental Improvement					Community Objectives	
Jobs	Commuter Movement	Reduces Disruption	Reduces Damage	Habitats and Biodiversity	Water Quality	GHG	Water Use	Energy Use	Community Objectives	Existing Plans
Promotes or retains jobs	Maintains commuter movement	Reduces service or network disruptions	Reduces asset damage, e.g., to structures or infrastructure	Creates or maintains habitat and biodiversity	Maintains or improves water quality	Reduces GHG emissions	Reduces water use	Reduces energy use	Advances other community objectives	Supports existing plan objectives, e.g., general plan policies

Table top exercise

- Choose one of the three strategies used as examples earlier (handout)
- Groups of two – choose 1 “frame” of criteria and score them (choose another if you have time)
- Share among your table how you chose your scores
- Lightning round report back

Strategy Implementation

- Evaluate your strategies
- Select 3-5 priority strategies to develop implementation plans for
- How to choose strategies if they all evaluate similarly
 - Is there a champion?
 - Is there alignment with other ongoing or planned efforts?
 - Is it an “easy win?” (easy to achieve, high benefit)
 - Is it “unlocking?” (opens the door to other action)

Strategy Implementation

STRATEGY IMPLEMENTATION INFORMATION	
Priority (Evaluation Score)*	<i>Evaluation score and priority level. Priority levels may vary by jurisdiction for different scores (for example, a score of 10 may be high priority in one jurisdiction and medium priority in another)</i>
Actions/ Activities	<i>Steps that need to be taken to implement the strategy.</i>
Staff Lead	<i>Who has responsibility for overseeing the project and ensuring that the actions are taken.</i>
Cost Estimate*	<i>General estimate of the cost of implementation. This can be quantitative or qualitative (no cost, low, medium, high).</i>
Benefits (losses avoided)*	<i>General estimate of the impact of the strategy. Can be quantitative (lives, homes, or dollars saved), or qualitative (low, medium, high benefit).</i>
Potential Funding Sources*	<i>How the implementation of the strategy might be funded. This may include general operation funds, grants, fees, or other financing tools.</i>
Timeline*	<i>How long it will take to implement the strategy. You may choose to set a date by which the action should be implemented, or use a qualitative timeline estimate (near term, long term).</i>
Related Policies*	<i>Goals or policies already in place that support or assist the strategy. This may be in your general plan, climate action plan, housing element, climate adaptation plan, or sustainability plan.</i>

Strategy Implementation (example)

STRATEGY IMPLEMENTATION INFORMATION	
Priority (Evaluation Score)*	12 (out of 23) = High
Actions/Activities	<ul style="list-style-type: none"> • Begin by working with owners of remaining potentially hazardous URM buildings to obtain structural analyses of their buildings and to undertake corrective mitigation measures to improve seismic resistance or to remove the buildings and replace them with safer buildings. • Apply available legal remedies, including but not limited to citations, to owners who fail to comply with the URM ordinance. • Maintain program notification to building occupants and owners.
Staff Lead	Program and Administration Manager
Cost Estimate*	Low cost
Benefits (losses avoided)*	High benefit
Potential Funding Sources*	General operations budget
Timeline*	Engage all remaining URM building owners by January 2015
Related Policies*	General Plan Policy S-20, Action A

Plan Review Process

CalOES reviews/works with community and submits to FEMA

FEMA reviews and consults with CalOES for clarifications (as needed)

FEMA sends Plan Review Tool to community

- FEMA will notify the community if revisions are required; will work with the community to assist with plan revisions

Local Mitigation Plan Review Guide

October 1, 2011



FEMA

Plan Submittal: What to Submit

- Hazard Mitigation Plan
 - 1 hard copy
 - An electronic copy
- Hazard Mitigation Plan Review Tool
 - POC information
 - Plan location information

LOCAL MITIGATION PLAN REVIEW TOOL

The *Local Mitigation Plan Review Tool* demonstrates how the Local Mitigation Plan meets the regulation in 44 CFR §201.6 and offers States and FEMA Mitigation Planners an opportunity to provide feedback to the community.

- The Regulation Checklist provides a summary of FEMA's evaluation of whether the Plan has addressed all requirements.
- The Plan Assessment identifies the plan's strengths as well as documents areas for future improvement.
- The Multi-jurisdiction Summary Sheet is an optional worksheet that can be used to document how each jurisdiction met the requirements of the each Element of the Plan (Planning Process; Hazard Identification and Risk Assessment; Mitigation Strategy; Plan Review, Evaluation, and Implementation; and Plan Adoption).

The FEMA Mitigation Planner must reference this *Local Mitigation Plan Review Guide* when completing the *Local Mitigation Plan Review Tool*.

Jurisdiction:	Title of Plan:	Date of Plan:
Local Point of Contact:	Address:	
Title:		
Agency:		
Phone Number:	E-Mail:	

State Reviewer:	Title:	Date:
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FEMA Reviewer:	Title:	Date:
Date Received in FEMA Region 9		
Plan Not Approved		
Plan Approvable Pending Adoption		
Plan Approved		

Local Mitigation Plan Review Tool (FEMA, October 1, 2011) A-1

Plan Adoption

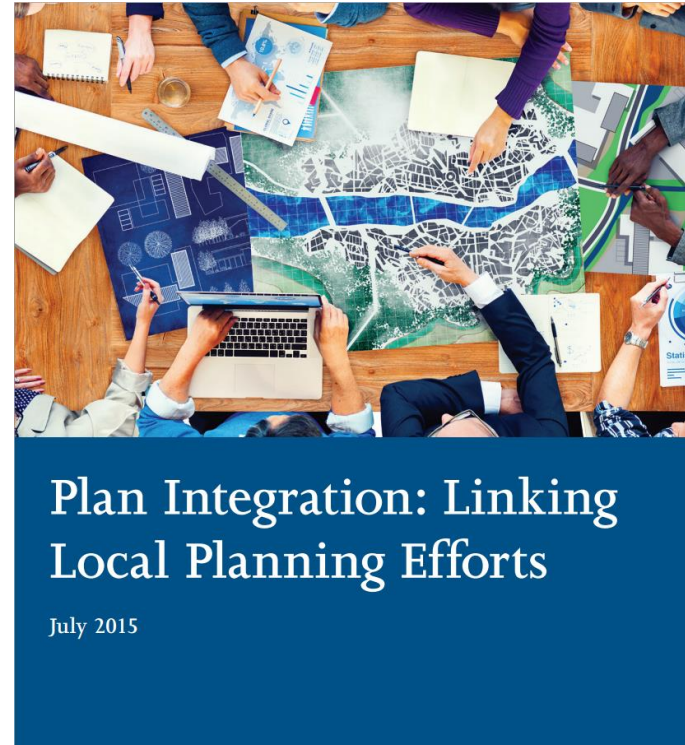
- Recommend adopting the Plan after receiving “Approval Pending Adoption” Status (APA) from FEMA
- Adoption must take place within 1 calendar year upon receipt of FEMA APA status
 - If not adopted within this timeframe, the Plan must be updated and resubmitted for State and FEMA review
- FEMA Formal Approval Letter sent once FEMA receives adoption resolution
 - Official Approval Date
 - Expiration Date (5-year approval period)

Plan Integration

- Other Planning Mechanisms

- Building codes
- CIPs/Budgets
- Emergency Management/ Operations Plans
- Continuity of Operations Plans
- Floodplain Ordinances
- Long-Range Transportation Plans
- Parks/Open Space/ Greenways/ Recreation Plans
- Post-Disaster Development Plans
- Stormwater Management Plans
- Subdivision/Land Development/Zoning Ordinances

- Comprehensive/General Plans
- Across Agencies and Departments



Hazard Mitigation Planning Contacts

CalOES contact:

Victoria LaMar-Haas

Senior Emergency Services
Coordinator

Hazard Mitigation Planning

Phone: 916-845-8531

Victoria.lamar-haas@calema.ca.gov

FEMA Region IX contact:

Phillip Wang

Hazard Mitigation Planning Specialist

Phone: 510-627-7753

Phillip.wang@fema.dhs.gov



Next Steps – Local Jurisdictions

Develop Hazard Mitigation & Adaptation Goals & Strategies



Workshop 3: Mitigation and Adaptation Strategy

Outcome: Obtain draft materials of mitigation and adaptation actions that respond to community goals. Gauge feasibility of actions.

Strategy Development Kick-off

- Prepare materials for public workshop.

Public Workshop - Develop Mitigation & Adaptation Strategies

Outcome: Public helps develop list of mitigation and adaptation strategies. The workshop should provide actionable feedback.

Develop Mitigation Strategies

- Analyze public workshop results.
- Organize full list of possible goals and future mitigation/adaptation actions.
- Draft findings into a preliminary draft of Chapter 6 Mitigation Strategies.

Public Workshop - Prioritizing Strategies

Outcome: Citizens are tasked with prioritizing strategies. The workshop should provide the planning team with actionable feedback.

Planning Team Meeting – Implementation & Prioritization

- Evaluate and prioritize actions.
- Develop action plan for implementation of actions.
- Organize and finalize Chapter 6 Mitigation Strategies.

Adoption & Implementation



Planning Team Meeting – Integration

- Incorporate into existing plans and procedures
- Document integration in Chapter 7 Maintenance Procedure.

Submit LHMP to CalOES for Review

- CalOES reviews and sends changes back to jurisdiction. **This review can take up to 3 months.*
- Jurisdiction makes the changes - CalOES forwards the LHMP to FEMA for review.

FEMA Approves Plan

- FEMA works directly with city if changes are needed.

Adopt LHMP at Council|Board

- An adoption resolution is taken to the jurisdictions governing council|board.

Submit adoption resolution to FEMA

Most Bay Area plans are set to expire on March 24, 2016.

Next steps – ABAG/BCDC

September	October-January
Strategies Sources Guide	Ad-hoc technical assistance
Final Risk Landscape	Submit your Plan!

Stay informed

Twitter



@ABAG_Resilience

ABAG resilience newsletter -
quarterly

Sign up at bit.ly/1FU0ehe

Mitigation and Adaptation
Planning mailing list

abag.ca.gov/resilience/resilience_planning.html

www.adaptingtorisingtides.org



Welcome!

Adapting to Rising Tides — the ART Project — is a collaborative planning effort to help San Francisco Bay Area communities adapt to sea level rise and storm event flooding. Led by the San Francisco Bay Conservation and Development Commission and the National Oceanic and Atmospheric Administration Coastal Services Center, the ART Project has engaged local, regional, state and federal agencies and organizations, as well as non-profit and private associations. Together, the ART Project team and its partners are working towards the project goal of increasing the Bay Area's preparedness and resilience to sea level rise and storm events while protecting critical ecosystem and community services.

Watch the video to learn more about the ART Project.



NOAA Coastal Services Center
LINKING PEOPLE, INFORMATION, AND TECHNOLOGY



San Francisco Bay
Conservation and Development Commission

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Hazards Projects Topics Publications About

Featured Projects



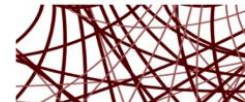
Stronger Housing, Safer Communities

An ABAG and BCDC report on vulnerability of housing and communities to earthquakes and flooding and strategies to address them



Mitigation and Adaptation Plans

ABAG and BCDC are supporting jurisdictions to update and develop local hazard mitigation and climate adaptation plans



Upcoming Events

04.16.15 Community Engagement Workshop (Redwood City)

This workshop is designed to support local mitigation and adaptation planning process. [Learn more »](#)

04.29.15 Community Engagement Workshop (Napa)

This workshop is designed to support local mitigation and adaptation planning process. [Learn more »](#)

[Past events »](#)

In the News

Do you rent or own a home or apartment in Oakland? [Learn more about programs to improve the seismic safety of Oakland housing.](#)
Posted on 01.14.15

[L.A. mayor calls for mandatory earthquake retrofitting for thousands of buildings | LA](#)



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